

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously Presented) A biopsy instrument for sampling bone marrow tissue, said instrument comprising:

a handle for inserting said instrument into said tissue; and

a single hollow tube, configured for both cutting and receiving a tissue sample, coupled to said handle;

said tube having (a) a bore defining a tissue-receiving space for said tissue sample, (b) a substantially rigid tip, and (c) an outer wall configured to contact said tissue, said outer wall being provided with an abrading formation extending in an axial direction along the tube said tube to abrade said tissue; ?

and thereby allow said tip of said single hollow tube to be laterally displaced within said bone marrow tissue to facilitate retrieval of the tissue sample.

2. (Previously Presented) A biopsy needle as claimed in claim 1, wherein said abrading formation comprises at least one slot cut into said outer wall, said slot having at least one sharp edge.

3. (Previously Presented) A biopsy needle as claimed in claim 2, wherein two outer edges of said slot are defined by the intersection of said slot with said outer wall, and wherein both said outer edges are sharp.

4. (Previously Presented) A biopsy needle as claimed in claim 2, wherein said slot extends through said sampling tube between said outer wall and said bore.

5. (Previously Presented) A biopsy needle as claimed in claim 2, wherein said abrading formation comprises a plurality of said slots spaced circumferentially about said tube.

6. (Previously Presented) A biopsy needle as claimed in claim 5, wherein said slots of said abrading formation do not extend to the end of said tube tip.

7. (Previously Presented) A biopsy needle as claimed in claim 2, wherein said slot extends, in an axial direction, at least 1 cm from said tip.

8. (Previously Presented) A biopsy needle as claimed in claim 1, wherein said tube further comprises a sample detacher at said tip of said sampling tube tip wall to assist in detaching a base portion of said tissue sample from adjoining tissue.

9. (Previously Presented) A biopsy needle as claimed in claim 8, wherein said sample detacher comprises a slot cut into a wall of said tip.

10. (Previously Presented) A biopsy needle as claimed in claim 9, wherein said sample detacher slot extends through said wall of said tip.

11. (Previously Presented) A biopsy needle as claimed in claim 9, wherein said sample detacher comprises a plurality of sample detacher slots spaced circumferentially spaced on said tip.

12. (Previously Presented) A biopsy needle as claimed in claim 9, wherein said sample detacher slot has a length of between 1mm and 2mm.

13. (Previously Presented) A biopsy needle as claimed in claim 8, wherein at least a part of said sample detacher is disposed on said tube substantially opposite at least a part of said abrading formation.

14. (Previously Presented) A biopsy needle as claimed in claim 1 further comprising a stop to inhibit over-insertion of said tube into said tissue being sampled.

15. (Previously Presented) A biopsy needle as claimed in claim 14, wherein at least a portion of said stop is integrally formed with at least a portion of said handle.

16. (Previously Presented) A biopsy needle as claimed in claim 1, wherein said tube bore extends through said handle.

17. (Currently Amended) A biopsy needle as claimed in claim ~~tube~~ 16, wherein said handle is adapted for connection of a suction device to said tube bore.

18. (Previously Presented) A biopsy needle as claimed in claim 16 further comprising a coupling for coupling the needle to a motor drive for rotation of said tube.

19. (Previously Presented) A biopsy needle as claimed in claim 1 wherein the sampling tube has a sharpened, beveled tip.

20. (Cancelled)

21. (Currently Amended) A method of sampling a substance using a needle, the said needle having a handle coupled to a sampling member, said sampling member comprising a sampling tip with a bore therein to receive a sample of the said substance, said sampling tip having a formation on its outer surface for abrading the said substance, the method comprising:

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inserting said sampling tip into the said substance to be sampled to collect a sample within said bore;

gyrating said sampling tip such that the said substance is abraded to allow said sampling tip to be displaced laterally sufficiently to weaken a connection between the said sample and the bulk of the substance; and

withdrawing said sampling tip with the said sample therein.

22. (Previously Presented) A biopsy needle for sampling bone marrow tissue, comprising:

a tissue sampling member comprising a sampling tube with a bore therein to receive a tissue sample;

a handle connected to said tissue sampling member for manual insertion of the biopsy needle; and

a coupling member, detachably connected to said tissue sampling member, for coupling the needle to a rotary motor drive;

whereby the needle is adapted for both manual insertion and motor-assisted insertion.

23. (Currently Amended) A biopsy needle as claimed in claim 22 wherein an outer surface of said sampling tube is in contact with the said sampled tissue and wherein said motor drive rotates at least said outer surface.

24. (Currently Amended) A biopsy needle as claimed in claim 22 further comprising a stop, said stop comprising an enlargement of said sampling tube to inhibit over-insertion of the sampling tube into the said sampled tissue.

25. (Previously Presented) A biopsy needle as claimed in claim 24, wherein said enlargement is disposed at a fixed distance from a tip of said sampling tube.

26. (Previously Presented) A biopsy needle as claimed in claim 24, wherein at least a portion of said stop is integrally formed with at least a portion of said handle.

27. (Currently Amended) A biopsy needle as claimed in claim 22, wherein said coupling member is separable from the needle and comprises a shaft adapted to be received by said sampling tube, a connecting portion for connecting said motor drive, and a drive portion to engage with said handle.

28. (Cancelled)

29. (Currently Amended) A biopsy needle assembly comprising:
a single elongated tubular cannula, having an axially extending lumen there through and having distal and proximal ends,

a cannula handle attached to the proximal end of said cannula, said cannula handle extending transversely to the axis of said cannula and having a cavity aligned with and open to the proximal end of said cannula,

a distal end of said cannula which is beveled and sharpened and in free fluid communication with the proximal end,

a recess or recesses on the outer surface of the said cannula distal end,

an expansion on the outer surface of the said cannula distal end,

an orifice in said cannula handle in fluid flow communication with said cannula lumen, said orifice being coaxial with said cannula lumen,

a stylet having a knob affixed to its proximal end, said knob sized to fit matingly within said orifice,

an elongated stylet shaft extending from said knob, slidably received within said cannula lumen,

said stylet having a sharpened distal tip which extends distally from the distal end of said cannula,

said orifice retaining said knob so that force may be rotatably applied around either axis of direction of said elongated stylet positioned in said orifice without relative rotation between elongated stylet and said elongated cannula,

a connector attachment having a knob affixed to its proximal end, said knob being sized to fit matingly within said orifice,

said connector attachment having a shaft affixed to its proximal end, said knob and shaft being sized to fit within said orifice of cannula handle distally and said knob sized to fit an electric drill or electric screw driver proximally,

said orifice retaining said knob of said connector attachment so that force maybe rotatably applied around either axis direction of said elongated connector attachment positioned in said orifice without relative rotation between elongated connector attachment and ~~said~~ said elongated cannula,

an electric drill or electric screw driver,

a sheath which is sized to fit around said electric drill or electric screw driver,

said sheath having an opening to receive said electric drill or said electric screw driver,

said opening having a strap or string to enclose said electric drill or said electric screw

driver,

a pushrod having a knob affixed to its proximal end, said knob being sized to fit slidably within said orifice,

an elongated shaft extending from said pushrod knob, slidably received within said cannula lumen,

said pushrod having a blunt distal tip which extends distally from the distal end of said cannula.

30. (Previously Presented) A biopsy needle as claimed in claim 22 further comprising a motor drive and an insulating, sterile or sterilizable, protective sheath to substantially enclose said motor drive except for a drive shaft, whereby said motor drive may be operated to drive said tissue sampling member while said motor drive is within said sheath.

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31. (Previously Presented) A biopsy needle as claimed in claim 18, wherein said coupling is separable from the needle and comprises a shaft adapted to be received by said tube, a connecting portion for connecting the motor drive, and a drive portion to engage with said handle

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